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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,378	02/06/2001	Hiroaki Kitamoto	Kanzaki Case 161	8381

7590 01/29/2004  
FLYNN, THIEL, BOUTELL & TANIS, P.C.  
2026 Rambling Road  
Kalamazoo, MI 49008-1699

EXAMINER
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NASH, BRIAN D

ART UNIT	PAPER NUMBER
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3721

DATE MAILED: 01/29/2004

15

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/777,378

**Applicant(s)**

KITAMOTO, HIROAKI

**Examiner**

Brian D Nash

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-15 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Examiner's Comments*

1. This action is in response to applicant's amendment received 22 December 2003.

Applicant has amended claims 21 and 22. The pending claims remain 11-15 and 17-22.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-12, 14, 17, 19 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2050243 to Yukiari et al in view of US 5,321,935 to Spatz et al and further in view of US 6,105,343 to Grove et al. Yukiari et al disclose an apparatus including a capping device having a capping head (4) that clamps a cap (5), vertically places the cap onto a vessel (1), and rotates the cap counterclockwise with respect to the vessel such that threads on the cap and the vessel are not engaged with each other and an incipient position of meshing engagement between the cap and the vessel are determined. Yukiari also discloses rotating the cap in a clamping direction by a predetermined rotational angle with respect to the incipient position of meshing engagement (see translated abstract of Yukiari patent). Yukiari does not measure the torque acting on the cap when the incipient position of meshing engagement is determined, but rather registers the position using a controller that stores the physical position via a position

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detector. However, Spatz et al teaches an apparatus and method wherein a change in force on the cap, i.e. torque on the cap, is measured (3,13,15,17), while rotating the cap (3) to a predetermined torque (see column 4, lines 10-43) through at least one complete revolution (see column 5, lines 4-6), and stops rotation after predetermined torque is achieved; comprising an elevating means (see column 4, lines 3-12), a measuring means (13), an angle detection means (17), and a control means (19); wherein the acting force is a rotational force.

It would have been obvious to one having ordinary skill in the art at the time of the invention to have combined the apparatus and method of Yukiari et al with that of Spatz et al in order to register the incipient position of meshing engagement via a torque calculation between the cap and vessel threads as opposed to a position detector so that damage to either the cap or vessel threads can be avoided by preventing too much torque being applied to each.

Regarding applicant's current amendment to claims 21 and 22, Yukiari in combination with Spatz et al disclose the inventions substantially as claimed, but do not show rotating the cap and the vessel relatively with respect to each other at an elevation where the threads on the cap and vessel are not engaged with each other. However, Grove et al disclose an apparatus and method wherein a cap is held in a chuck that is lowered toward a container and rotated by a spindle in a direction to tighten the cap. Grove et al further disclose that upon engagement of the cap with the container threads, rotation of the cap is continued thereby implying that rotation occurs prior to engagement and at an elevation of the cap prior to being lowered into contact with the container (see Grove et al, column 1, lines 35-45).

It would have been obvious to one having ordinary skill in the art at the time of the invention to have incorporated the well-known method of Grove et al for the purpose of rotating

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the cap at an elevation prior to being lowered into engagement with the threads of the container and subsequently tightening the cap onto the container.

4. Claims 13, 15, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2050243 to Yukiari et al in view of US 5,321,935 to Spatz et al and further in view of US 6,105,343 to Grove et al as applied to claims 11-12, 14, 17, 19 and 21-22 above, and further in view of US 5,685,552 to Barca. As discussed above in paragraph 3 of this office action, Yukiari et al and Spatz et al disclose the claimed invention but do not include rotating the cap in the clamping direction during its descent or measuring a vertical load acting on the cap.

However, Barca teaches measuring the axial load on the cap (see Barca, column 1, line 65 – column 2, line 4) and the use of adapter to rotate the screwhead in the clamping direction while descending the cap toward the container in order to minimize the creation of particulate matter.

In view of Barca, it would have been obvious to one having ordinary skill in the art to have provided the adapter for measuring axial loads on the cap and rotating the screwhead in the clamping direction while descending toward the container for the purposes of eliminating or minimizing the creation of particulate matter and improve the efficiency of installing threaded plastic caps.

### ***Response to Arguments***

5. Applicant's arguments filed 22 December 2003 have been fully considered but they are not persuasive. Specifically, applicant's arguments with respect to the amendments made to claims 21 and 22 have been considered but are moot in view of the new ground(s) of rejection.

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6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Yukiari and Spatz combine to show the invention substantially as claimed as explained in paragraph 3 above. Furthermore, Grove et al discloses in the background art that the applicant's method wherein rotating the cap and the vessel relatively with respect to each other at an elevation where the threads on the cap and vessel are not engaged with each other is well known in the art and not novel.

For the reasons above, the grounds for rejection are deemed proper.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Nash whose telephone number is (703) 305-4959. The examiner can normally be reached on Monday – Thursday from 8 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi I. Rada can be reached at 703 308-2187.

The fax number for this Group is: 703-872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1148.

Brian D. Nash  
21 January 2004

A handwritten signature in black ink, appearing to read 'Rinaldi I. Rada', with a long horizontal line extending to the right.

Rinaldi I. Rada  
Supervisory Patent Examiner  
Group 3700